



# UNITED STATES PATENT AND TRADEMARK OFFICE

*E.O.L.*

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/750,306	12/29/2000	Carol J. Ansley	56130.000063	6729
21924	7590	06/01/2005		EXAMINER
ARRIS INTERNATIONAL, INC 3871 LAKEFIELD DRIVE SUWANEE, GA 30024			JONES, PRENELL P	
			ART UNIT	PAPER NUMBER
			2667	

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/750,306	ANSLEY, CAROL J.	
	Examiner Prenell P. Jones	Art Unit 2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 13 December 2004.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1 and 3-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1 and 3-22 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

***Response to Arguments***

1. Applicant's arguments with respect to claims 1 and 3-22 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 6, 8-12, 16, 18, 20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller et al in view of Camey et al.

Regarding claims 1, 6, 8-12, 16, 18, 20 and 22, Miller discloses (Abstract, col. 6, line 65 thru col. 8, line 67) block spectrum receiver in addition to a number of other receivers for a broadband communication system over cable television distribution (CATV), wherein (Figs. 4, 5 and 7, col. 22, line 30 thru col. 23, line 60) multiplexed telephony directing incoming signals to subscribers on a broadband network, receiving outgoing signals from subscribers on the upstream as associated with selected sub-bands (assigned frequency block), multiplexed signals to bus or backplane, (col. 12, line 15-40, col. 13, line 16-26) CATV network interfaces with a telephony network via input and output interface, (col. 6, line 65 thru col. 8, line 67, col. 18, line 24-43) receiver includes a tuner, whereby the can be variable or fixed, or can be adapted to tune in on

Art Unit: 2667

certain frequencies (col. 13, line 16-26, col. 14, line 31-41) plurality of broadband input signals, input interface and output interface, (col. 16, line 7(col. 15, line 13-56, col. 18, line 44-67, col. 19, line 25-67) utilizing multiple receivers associated with a broadband network, utilizing CATV broadband communication system and frequency allocation, (col. 13, line 62 thru col. 14, line 8, col. 18, line 11-14) decoding of multiplexed data that is translated into and assigned frequency, (col. 20, line 4-13, col. 23, line 50-67, col. 25, line 17-38) outgoing telephony signals are digitized, (col. 17, line 29-51) data signals are grouped with individual sub-band (frequency block), (col. 21, line 7-36) utilizing frequency agile feature and dynamically assigning channels in response to changing conditions and reallocation of bandwidth in response to subscribers needs. However, Miller is silent on multiplexing signals from several receivers on a common path or bus. In a communication system that utilize multiplexing of data between locations, Carney discloses a communication system that interconnects multiplexers and office terminals, (col. 1, line 20-37) wherein Carney further discloses that it is known in the art to multiplex signals from several lines on a common path or bus. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to be motivated to implement multiplexing multiple signals onto a common bus or path as disclosed by Carney with the teachings of Miller for the purpose of further handling large amounts of data between locations more efficiently.

3. Claims 3, 13 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller et al in view of Carney et al as applied to claims 1, 6-12, 16-18 and 20 above, and further in view of Gorman et al.

Regarding claims 3, 13 and 21, as indicated above, the combined teachings of Miller and Carney, who both teach handling communicating a plurality of data between locations as associated with multiplexing. However, Miller and Carney fail to disclose utilizing a backup receiver. In analogous art, Gorman (Abstract, Figs. 1-11, col. 3, line 48 thru col. 6, line 57, col. 8, line 39 thru col. 10, line 35) discloses fiber network accommodating high-speed broadband communications via cable modem wherein the architecture includes bi-directional transmission of packets between cable modem terminal system (CMTS) and cable modems/subscriber terminals, a plurality of receiver modules associated with the CMTS, fiber coax networks/cable television that accommodate path multiplexing, plurality of ports for interfacing devices, ATM interfaces, allocation of system services (frequency/channels), (col. 18, line 9 thru col. 20 line 35) multiple RPM/multiplexers for multiplexing signals (broadband), (col. 16, line 59 thru col. 17, line 25) control signals used for scheduling and assigning, (col. 6, line 15 thru col. 7, line 3) network accommodates Internet services via IP protocol, receiver communicating information via buses, and he further discloses (Fig. 13, col. 25, line 29 thru col. 27, line 25) additional receiver cards used as redundant backup receiver to other receiver cards, RPM allows other receiver cards to sit in standby mode in case a receiver card fails, (Fig. 13, Fig. 5, col. 16, line 49 thru col. 17, line 18, line 40, col. 20, line 30 thru col. 22, line 47) receiver modules that include a plurality of ports (interfaces) and traffic schedulers which communicate control signals/grant request between communicating locations, and controls signals used for managing communication within a system, and Applicant discloses in the background of the invention (page 1, line 14 thru page 2, line 12) that it is well known in the art to have CMTS equipment that is installed in cable TV, which includes a set of RF receivers to which data feeds may be routed for decoding, utilizing a backup CMTS (set of receivers) to accommodate power failures that occur. Therefore, it would have been obvious to one of ordinary skill

in the art at the time of the invention to be motivated to implement using backup receiver/receivers in a multiplexing environment as taught by Gorman with the combined teachings of Miller and Carney's multiplexing systems for the purpose of further efficiently handling data in case of a device failure.

4. Claims 7 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller et al in view of Carney et al as applied to claims 1, 6-12, 16-18 and 20 above, and further in view of Sistanizadeh et al.

Regarding claims 7 and 17, as indicated above, the combined teachings of Miller and Carney, who both teach handling communicating a plurality of data between locations as associated with multiplexing. However, Miller and Carney fail to disclose utilizing an interface containing a plurality of converters for converting optical signals to electrical signals. However, in multiplexed environment Sistanizadeh discloses (Abstract, Figs. 7 & 12, col. 6, line 36 –67, col. 8, line 59-67) a broadcast system that supplies multiplexed channels to plurality of receiving systems providing broadband service, communication among broadband devices such as cable TV via associated broadband signals, (col. 24, line 61 thru col. 25, line 17) multiplexing broadband signals with respect to assigned frequency range. Sistanizadeh further discloses (col. 14, line 7-40) plurality of converters wherein there exist an electrical to optical and optical to electrical converters system whereby optical signals are converted to electrical signals and visa versa. Therefore, it would have been obvious to implement plurality of electrical to optical

converters as taught by Sistanizadeh multiplexing system with the combined teachings of Miller and Carney, who also utilize fiber/optics in their multiplexing systems for the purpose of further handling data more efficiently in a multiplexing environment.

***Allowable Subject Matter***

5. Claims 4, 5, 14, 15 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Although the combined prior art of Gorman et al and Sistanizadeh et al wherein Gorman discloses broadband communication associated with a CATV fiber optic network whereby the cable modems assist in scheduling transmission with respect to allocated frequency and bandwidth management, and Sistanizadeh discloses managing frequency/bandwidths associated with communicating broadband data in a wireless cable modem (CATV) environment they fail to teach/suggest the activation of a second receiver unit comprises tuning at least one of the individual receiver modules of a second receiver unit to an assigned frequency for a corresponding failed one of the individual receiver modules in the first receiver.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prenell P. Jones whose telephone number is 571-272-3180. The examiner can normally be reached on 9:00-5:30.

Art Unit: 2667

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Prenell P. Jones

*P.J.*

May 23, 2005

*Chi Pham*  
CHI PHAM  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600

5/25/05